

Screencast: [03-distros.webm](#) or [03-distros.mp4](#)

What is a Linux distribution?

A Linux distribution is the Linux kernel provided with a collection of additional software such that it can be booted on a computer from optical media, floppy disk, USB thumbdrive, etc... and is most often installable to permanent storage. A distribution may or may not provide periodic software updates to fix software bugs and remedy security problems.

There are **over 500** different Linux distributions. Why do so many exist?

Most of them inherit from one of the major distros:

- Debian
- Slackware
- Red Hat

So many exist for a number of reasons:

- The source is there and the license lets you roll your own
- Localization - Country/Language specific
- Specific CPU arch - PPC, Alpha, ARM, SPARC, etc
- Specific devices - Linksys router, Raspberry Pi, ODROID, Android devices, etc
- Specific storage - Floppy, CD, Zip disk, small HD, diskless terminal, etc
- Specific software - Desktop env, special software or configuration, etc
- Specific use case - KVM virtualization host, Container host, Python Programming, Gaming, etc
- Educational - Linux from Scratch

How does one Linux distribution differ from another:

- Installer
- Software available (desktop spins)
- Administration tools (GUI, TUI, CLI)
- Init system (SysV init, upstart, OpenRC, systemd)
- Developers and community / Company
- 95% of the same software

Why does Scott like Red Hat and Fedora?

See: [Is Red Hat still relevant? You bet.](#)

What about Ubuntu or other distributions?

Resources:

- Linux Weekly News' [Distributions](#) page
- [DistroWatch](#)